

## 1H-Phenylene-1,3(2H)-dione

- [23177-27-7]  
**1H-Phenylene-1,3(2H)-dione**  
 — 2-(acetylaminio) —  
 See Acetamide, N-(2,3-dihydro-1,3-dioxo-1H-phenalen-2-yl)- [16777-67-6]  
**1H-Phenalen-1-one**  
 cyclic 1,2-ethanediyl acetal —  
 see Spiro[1,3-dioxolane-2,1'-(1H)phenylene] [7173-12-8]  
**Phenaleno[1,2,3-cd]perylene**  
 See Tribenzo[de,klr]pentaphene [188-72-7]  
**Phenaleno[1,9-ab]perylene**  
 See Benzol[lm]naphthal[1,8-ab]perylene [97938-05-1]  
**Phenall**  
 See also Phenolic resins  
**Phenallymal**  
 See 2,4,6-(1H,3H,5H)-Pyrimidinetrione, 5-phenyl-5-(2-propenyl)- [115-43-5]  
**Phenanol**  
 See L-Phenylalanine, N-[(4-bis(2-chloroethyl)amino)phenyl]acetyl-, ethyl ester [3819-34-9]  
**Phenamet**  
 See L-Methionine, N-[(4-bis(2-chloroethyl)amino)phenyl]acetyl-, ethyl ester [3819-34-9]  
**Phenamide**  
 See L-Phenylalanine, N-(3-amino-3-methyl-1-oxobutyl)- [164864-45-3]  
**Phenamidine**  
 See Benzenecarboximidamide, 4,4'-oxybis- [101-62-2]  
**Phenamidine isethionate**  
 See Ethanesulfonic acid, 2-hydroxy-, compd. with 4,4'-oxybis(benzenecarboximidamide) (2:1) [620-90-6]  
**Phenamil**  
 See Pyrazinecarboxamide, 3,5-diamino-6-chloro-N-(imino)phenylamino)methyl- [2038-35-9]  
**Phenamin (antipyretic)**  
 See Acetamide, 2-amino-N-(4-ethoxyphenyl)- [103-97-9]  
**Phenamine (sympathomimetic)**  
 See Benzenethanamine,  $\alpha$ -methyl-, sulfate (2:1) [60-13-9]  
**Phenamine Black E 200**  
 See 2,7-Naphthalenedisulfonic acid, 4-amino-3-[(4'-(2,4-diaminophenyl)azol[1,1'-biphenyl]-4-yl)azo]-5-hydroxy-6-(phenylazo)-, disodium salt [1937-37-7]  
**Phenamine Black RW**  
 See 2,7-Naphthalenedisulfonic acid, 4-amino-3-[(4'-(2,4-diamino-5-methylphenyl)azol[1,1'-biphenyl]-4-yl)azo]-5-hydroxy-6-(phenylazo)-, disodium salt [2429-83-6]  
**Phenamine Fast Orange WS**  
 See Benzoic acid, 4-[(1-hydroxy-6-[[[5-hydroxy-6-(phenylazo)-7-sulfo-2-naphthalenyl]amino]carbonyl]amino]-3-sulfo-2-naphthalenyl]azo]-, trisodium salt [6598-63-6]  
**Phenamiphos**  
 See Phosphoramidic acid, (1-methylethyl)-, ethyl 3-methyl-4-(methylthio)phenyl ester [22224-92-6]  
**Phenampromide**  
 See Propanamide, N-[(1-methyl-2-(1-piperidinyl)ethyl)-N-phenyl- [129-83-9]  
**Phenanthraquinone**  
 See 9,10-Phenanthrenedione [84-11-7]  
**Phenanthraquinonimide anhydride**  
 See 10H-Dibenzol[e]phenanthro[9,10':4,5']imidazo[1,2-a]japin-10-one [32005-25-7]  
**Phenanthrene**  
 — 2,3,5,6-bis[methylenebis(oxy)]- —  
 See Phenanthro[2,3-d:5,6-d']bis[1,3,dioxole [195-16-4]  
 — 2,3,6,7-bis[methylenebis(oxy)]- —  
 See Phenanthro[2,3-d:6,7-d']bis[1,3,dioxole [222-38-8]  
 — 9,10-cyclohexamethylene- —  
 See Cycloocta[1]phenanthrene, 9,10,11,12,13,14-hexahydro- [14498-94-3]  
 — 1,10a:2,3-diepoxytetradecahydro- —  
 See 1H-Phenanthro[1,10a-b:2,3-b']bisoxirene, dodecahydro- [25707-02-2]  
 — 1,2-epoxy- —  
 See Phenanthro[1,2-b]oxirene [327-37-7]  
 — 2,3-epoxy- —  
 See Phenanthro[2,3-b]oxirene [223-85-8]  
 — 9,10-epoxy- —  
 See Phenanthro[9,10-b]oxirene [779-85-1]  
 — 1,10a-epoxy-3,10a-dihydro- —  
 See 2H-Phenanthro[1,10a-b]oxirene [173-41-1]  
 — 8a,9-epoxytetradecahydro- —  
 See 2H-Phenanthro[8a,9-b]oxirene, dodecahydro- [5699-16-1]  
 — 4,5-imino- —  
 See 4H-Benz[de]carbazole [203-65-6]  
 — 4,5-methylene- —  
 See 4H-Cyclopenta[de]phenanthrene [203-64-5]  
 — 2,3-[methylenebis(oxy)]- —  
 See Phenanthro[2,3-d:1,3,dioxole [224-09-9]  
 — 3,4-[methylenebis(oxy)]- —  
 See Phenanthro[3,4-d:1,3-dioxole [195-64-2]  
 — 9,10-[methylenebis(oxy)]- —  
 See Phenanthro[9,10-d:1,3-dioxole [236-13-5]  
 — 1,10-(1,3-propanediyl)- —  
 See 4H-Benz[de]anthracene, 5,6-dihydro- [4389-09-7]  
 $\Delta^2(1H),a$ -Phenanthreneacetic acid  
 — 3,6,7,8-tetrahydro-7-oxo- —  
 cyclic 1,2-ethanediyl mercaptol — see Acetic acid, (3',8'-dihydrospiro[1,3-dithiolane-2,2'-(1'H)-phenanthrene]-7'(6'H)-ylidene)- [27793-30-2]  
**1-Phenanthreneacetic acid**  
 — 2-carboxy- —  
 cyclic anhydride —  
 see 1H-Phenanthro[2,1-c]pyran-1,3(4H)-dione [6169-89-7]  
 — 1,4,4a,4b,5,6,8a,9,10,10a-decahydro-10-hydroxy-4,6-dioxo- —  
 $\delta$ -lactone — see Phenanthro[10,1-bc]pyran-1,5-

- 10(6aH)-trione, 3a,4,7,7a,11,11a,11b,11c-octahydro- [27793-27-7]  
 — 1,2-dihydro-2-oxo- —  
 cyclic 1,2-ethanediyl mercaptol —  
 see Spiro[1,3-dithiolane-2,2'-(1'H)-phenanthrene]-1'-acetic acid [6711-01-9]  
 —  $\alpha$ ,10-dihydroxy- —  
 $\delta$ -lactone — see Phenanthro[10,1-bc]pyran-5-(4H)-one, 4-hydroxy- [4732-89-2]  
 — 1,2,3,4,4a,4b,5,6,8a,9,10,10a-dodecahydro-10-hydroxy-4-oxo- —  
 $\delta$ -lactone — see Phenanthro[10,1-bc]pyran-1,5-dione, 2,3,3a,4,6a,7,7a,10,11,11a,11b,11c-dodecahydro- [27793-28-8]  
 — 10-hydroxy- —  
 $\delta$ -lactone — see Phenanthro[10,1-bc]pyran-5-(4H)-one [5699-26-3]  
**2-Phenanthreneacetic acid**  
 — 1-carboxy- $\alpha$ -hydroxy- —  
 $\gamma$ -lactone — see Phenanthro[1,2-c]furan-1-carboxylic acid, 1,3-dihydro-3-oxo- [4732-90-5]  
 — 3-hydroxy- —  
 $\gamma$ -lactone — see Phenanthro[3,2-b]furan-9(8H)-one [5699-28-5]  
 — 1-(2-hydroxyethyl)- —  
 $\epsilon$ -lactone — see Phenanthro[1,2-d]oxepin-2(1H)-one, 4,5-dihydro- [5699-29-6]  
**8a(2H)-Phenanthreneacetic acid**  
 $\delta$ -lactone — see 3,6a-Methano-6aH-naphth[2,1-d]oxocin-5(6H)-one, dodecahydro- [5699-30-9]  
**1-Phenanthrenebutanoic acid**  
 — 2-hydroxy- —  
 $\epsilon$ -lactone — see Phenanthro[2,1-b]oxepin-2(3H)-one, 4,5-dihydro- [5702-87-4]  
**Phenanthreneacetal**  
 See Phenanthrenemethanol [51057-65-9]  
**2-Phenanthreneacetaldehyde**  
 — 7,8-dihydro-7-oxo- —  
 cyclic 7-(1,2-ethanediyl acetal) —  
 see Spiro[1,3-dioxolane-2,2'-(1'H)-phenanthrene]-7'-carboxaldehyde [6539-33-9]  
**1-Phenanthreneacetic acid**  
 — 2,4a-dihydro-4a-hydroxy- —  
 $\gamma$ -lactone — see 2H-4a,1-(Epoxy)methano-phenanthrene-12-one [27203-53-8]  
 — 9-hydroxy- —  
 $\delta$ -lactone — see 9,1-(Epoxy)methano-phenanthrene-12-one [27203-54-9]  
 — 10-hydroxy- —  
 $\gamma$ -lactone — see 4H-Phenanthro[10,1-bc]furan-4-one [5721-81-3]  
 — 1,2,3,4,4a,9,10,10a-octahydro-4-oxo- —  
 cyclic 1,2-ethanediyl mercaptol —  
 see Spiro[1,3-dithiolane-2,2'-(1'H)-phenanthrene]-1'-carboxylic acid, 2',3',4',9',10',10'a-hexahydro- [6880-80-4]  
 — tetradecahydro-4a-hydroxy- —  
 $\gamma$ -lactone — see 2H-4a,1-(Epoxy)methano-phenanthrene-12-one, dodecahydro- [5684-09-3]  
 — tetradecahydro-4a-hydroxy-9-oxo- —  
 $\gamma$ -lactone — see 9H-4a,1-(Epoxy)methano-phenanthrene-9,12-dione, dodecahydro- [5684-11-7]  
**2-Phenanthreneacetic acid**  
 — 2,3-dihydro-4-hydroxy- —  
 $\gamma$ -lactone — see 1,4-Methanonaphth[1,2-c]-oxepin-3(4H)-one [5684-06-0]  
 — 7,10a-dihydro-1-(2-hydroxyethyl)-7-oxo- —  
 $\delta$ -lactone — see 1H-Phenanthro[2,1-c]pyran-1,8-(4bH)-dione, 3,4-dihydro- [5636-41-0]  
 — 7,8-dihydro-7-oxo- —  
 cyclic 1,2-ethanediyl acetal —  
 see Spiro[1,3-dioxolane-2,2'-(1'H)-phenanthrene]-7'-carboxylic acid [6539-34-0]  
 — 1-(2-hydroxyethyl)- —  
 $\delta$ -lactone — see 1H-Phenanthro[2,1-c]pyran-1-one, 3,4-dihydro- [5721-82-4]  
**9-Phenanthreneacetic acid**  
 — 4b,7-dihydro-4b-hydroxy- —  
 $\gamma$ -lactone — see 2H-4a,1-(Epoxy)methano-phenanthrene-11-one [5721-84-6]  
 — 10-(hydroxymethyl)- —  
 $\gamma$ -lactone — see Phenanthro[9,10-c]furan-1(3H)-one [5684-16-2]  
**2,3-Phenanthreneacetic acid**  
 See 8H-Naphth[1,2-f]isodindole-8,10(9H)-dione [5684-19-5]  
**4,5-Phenanthreneacetic acid**  
 See 4H-Phenanthro[4,5-cde]azepine-4,6(5H)-dione [32664-16-7]  
**9,10-Phenanthreneacetic acid**  
 See 1H-Dibenz[e,g]isodindole-1,3(2H)-dione [2510-61-4]  
**1,2-Phenanthreneacetic acid**  
 — 1,2,3,4,4a,9,10,10a-octahydro-4a-hydroxy- —  
 $\gamma$ -lactone — see 2H-4a,1-(Epoxy)methano-phenanthrene-2-carboxylic acid, 1,3,4,9,10,10a-hexahydro-12-oxo- [5665-44-1]  
 — tetradecahydro-4a-hydroxy- —  
 $\gamma$ -lactone — see 2H-4a,1-(Epoxy)methano-phenanthrene-2-carboxylic acid, dodecahydro-12-oxo- [5665-45-2]  
 — 1,2,3,4-tetrahydro-4-hydroxy- —  
 $\gamma$ -lactone — see 1,4-Methanonaphth[1,2-c]-oxepin-5-carboxylic acid, 1,3,4,5-tetrahydro-3-oxo- [5665-46-3]  
**1,7-Phenanthreneacetic acid**  
 — 8a-hydroxy- —  
 $\gamma$ -lactone — see 4H-3,5a-Methanonaphth[2,1-b]-oxepin-8-carboxylic acid, 4-oxo- [27203-56-1]  
**9,10-Phenanthreneacetic acid**  
 — 2,4a-dihydro-4a-hydroxy- —  
 $\gamma$ -lactone — see 2H-4a,10-(Epoxy)methano-phenanthrene-9-carboxylic acid, 11-oxo- [5723-53-5]

- 1,2-Phenanthreneacetic acid**  
 See Phenanthro[1,2-c]furan-1,3-dione [5665-48-5]  
 — 4,4a-epoxy-4a,8-dihydro- —  
 See 1H-Oxireno[4,4a]phenanthro[1,2-c]furan-7,9-dione [5665-49-6]  
**1,2-Phenanthreneacetic acid**  
 See 4H,6H-Phenanthro[1,10-c]dipyrane-4,6-dione [25540-67-4]  
**2,3-Phenanthreneacetic acid**  
 See Phenanthro[2,3-c]furan-8,10-dione [5665-50-9]  
**9,10-Phenanthreneacetic acid**  
 See Phenanthro[9,10-c]furan-1,3-dione [2510-53-4]  
**1,7(2H,4bH)-Phenanthreneacetic acid**  
 cyclic 1-(1,2-ethanediyl acetal) —  
 see Spiro[1,3-dioxolane-2,2'-(1'H)-phenanthrene]-7'(4bH)-one [6709-95-1]  
**1,7(6H,8H)-Phenanthreneacetic acid**  
 cyclic 7-(1,2-ethanediyl acetal) —  
 see Spiro[1,3-dioxolane-2,2'-(1'H)-phenanthrene]-8'(3H)-one [6709-96-2]  
**2,5-Phenanthreneacetic acid**  
 cyclic 2-(1,2-ethanediyl acetal) —  
 see Spiro[1,3-dioxolane-2,2'-(1'H)-phenanthrene]-5'-one [6875-03-2]  
**9,10-Phenanthreneacetic acid**  
 cyclic 1,2-phenylene acetal —  
 see Spiro[1,3-benzodioxole-2,9'(10'H)-phenanthrene]-10'-one [7020-48-6]  
**1,2-Phenanthreneacetic acid**  
 — 2-carboxy-2,3-dihydro-4-hydroxy- —  
 $\gamma$ -lactone — see 1,4-Methanonaphth[1,2-c]-oxepin-4,5(3H)-dipyranoic acid, 3-oxo- [4732-86-9]  
**Phenanthreneacetic acid**  
 See 9,10-Phenanthreneacetic acid [604-84-2]  
**1-Phenanthreneacetic acid**  
 — 4,7-dihydro-2-hydroxy-4,7-dioxo- —  
 $\delta$ -lactone — see 2H-Phenanthro[2,1-b]pyran-2,8,11-trione, 3,4-dihydro- [4732-98-3]  
 — 7,10a-dihydro-2-hydroxy-7-oxo- —  
 $\delta$ -lactone — see 2H-Phenanthro[2,1-b]pyran-2,8-(4bH)-dione, 3,4-dihydro- [4732-99-4]  
 — 7,8-dihydro-7-oxo- —  
 cyclic 1,2-ethanediyl acetal —  
 see Spiro[1,3-dioxolane-2,2'-(1'H)-phenanthrene]-8'-propanoic acid [6709-93-9]  
 —  $\alpha$ ,2-dihydroxy- —  
 $\delta$ -lactone — see 2H-Phenanthro[2,1-b]pyran-2-one, 3,4-dihydro-3-hydroxy- [4732-92-7]  
 — 8,8a-epoxy-8,8a-dihydro-2-hydroxy- —  
 $\delta$ -lactone — see 1aH,8H-Oxireno[8,8a]phenanthro[2,1-b]pyran-8-one, 9,10-dihydro- [26605-26-5]  
 — 2-(hydroxymethyl)- —  
 $\epsilon$ -lactone — see Phenanthro[2,1-c]oxepin-3(1H)-one, 4,5-dihydro- [4733-03-3]  
 — 2-hydroxy- $\alpha$ -oxo- —  
 $\delta$ -lactone — see 2H-Phenanthro[2,1-b]pyran-2,3-(4H)-dione [4733-05-5]  
**2-Phenanthreneacetic acid**  
 — 3-hydroxy- —  
 $\delta$ -lactone — see 10H-Phenanthro[3,2-b]pyran-10-one, 8,9-dihydro- [4733-04-4]  
**1-Phenanthreneacetic acid**  
 — 2-hydroxy- —  
 $\delta$ -lactone — see 2H-Phenanthro[2,1-b]pyran-2-one, 3,4-dihydro- [4733-02-2]  
**Phenanthreneacetic acid**  
 See 9,10-Phenanthreneacetic acid [84-11-7]  
**1,2-Phenanthreneacetic acid**  
 See 1,2-Phenanthreneacetic acid [573-12-6]  
**1,4-Phenanthreneacetic acid**  
 See 1,4-Phenanthreneacetic acid [569-15-3]  
**3,4-Phenanthreneacetic acid**  
 See 3,4-Phenanthreneacetic acid [4733-11-3]  
**Phenanthreneacetic acid**  
 See 9(10H)-Phenanthreneacetic acid, 10-imino- [3942-85-6]  
**1,2,5,6-Phenanthreneacetic acid**  
 1,2,5,6-dianhydride  
 See Phenanthro[1,2-c:5,6-c']difuran-1,3,8,10-tetrone [26605-28-7]  
**1,8,9,10-Phenanthreneacetic acid**  
 1,10,8,9-dianhydride  
 See 1H,10H-Phenanthro[1,10-cd:8,9-c'd']dipyrane-1,3,10,12-tetrone [17873-48-2]  
**2,3,6,7-Phenanthreneacetic acid**  
 2,3,6,7-dianhydride  
 See Phenanthro[2,3-c:6,7-c']difuran-1,3,8,10-tetrone [4733-14-6]  
**1,2,5,6-Phenanthreneacetic acid**  
 1,2,5,6-diimide  
 See Phenanthro[1,2-c:5,6-c']dipyrrole-1,3,8,10-tetrone [26666-37-5]  
**9,9,10,10-Phenanthreneacetic acid**  
 9,10,9,10-diimide  
 See 3a,11b-(Methaniminomethano)-1H-dibenz[e,g]-isodindole-1,3,12,14(2H)-tetrone [25490-50-6]  
**1,4,7(4bH)-Phenanthreneacetic acid**  
 — 4a,5,6,8,10,10a-hexahydro- —  
 cyclic 7-(1,2-ethanediyl acetal) —  
 see Spiro[1,3-dioxolane-2,2'-(1'H)-phenanthrene]-5',8'-dione, 3',4',4'a,4'b,8'a,9'-hexahydro- [6539-43-1]  
 — 2,3,4a,5,6,8,10,10a-octahydro- —  
 cyclic 7-(1,2-ethanediyl acetal) —  
 see Spiro[1,3-dioxolane-2,2'-(1'H)-phenanthrene]-5',8'-dione, 3',4',4'a,4'b,6',7',8'a,9'-octahydro- [6539-44-2]  
**2(1H)-Phenanthreneacetic acid**  
 cyclic 1,3-propanediyl mercaptol —  
 see Spiro[1,3-dithiane-2,2'-(1'H)-phenanthrene] [179-43-1]  
 — 5,8-dihydroxy- —  
 cyclic 1,2-ethanediyl acetal —  
 see Spiro[1,3-dioxolane-2,2'-(1'H)-phenanthrene]-5',8'-diol [6539-41-9]  
**3(2H)-Phenanthreneacetic acid**  
 cyclic 1,2-ethanediyl acetal —  
 see Spiro[1,3-dioxolane-2,3'(2'H)-phenanthrene] [6539-25-9]  
**[2,7](2,7)-Phenanthreneacetic acid**  
 See 1,3,4,4',7,10,13,16,19,22,25,28,31-